

Serial No. 09/538,396
Group Art Unit: 1638

- D1*
Amended
Sub E1
4. (Twice Amended) A transgenic plant comprising a recombinant expression cassette comprising the polynucleotide of claim 12.

- D2*
E1
8. (Amended) A transgenic seed from the transgenic plant of claim 4 comprising the recombinant expression cassette.

- Sub E1*
D3
12. (Amended) An isolated polynucleotide comprising a polynucleotide selected from the group consisting of:
- (a) a nucleic acid sequence having at least 80% sequence identity over the entire length of SEQ ID NO: 1, as determined by the GAP program under default parameters, wherein said sequence encodes a polypeptide having ATP-dependent DNA binding activity; and
 - (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).

- Sub E1*
D4
14. (Amended) An isolated polynucleotide comprising a nucleic acid sequence which selectively hybridizes to the full-length complement of SEQ ID NO: 1, under stringent hybridization conditions and a wash in 0.1X SSC at 60°C, wherein stringent hybridization conditions comprise 50% formamide, 1M NaCl, and 1% SDS at 37°C, wherein the polynucleotide encodes a polypeptide having ATP-dependent DNA binding activity.

- D5*
15. (Twice Amended) An isolated polynucleotide comprising at least 30 contiguous nucleotides from the polynucleotide of SEQ ID NO: 1.

Please add new claims 16-39 as follows:

- D6*
16. The isolated polynucleotide of claim 12, wherein the nucleic acid sequence of (a) has at least 85% sequence identity to SEQ ID NO: 1.

Serial No. 09/538,396
Group Art Unit: 1638

17. The isolated polynucleotide of claim ~~12~~¹³, wherein the nucleic acid sequence of (a) has at least 90% sequence identity to SEQ ID NO: 1.
18. The isolated polynucleotide of claim 12, wherein the nucleic acid sequence of (a) has at least 95% sequence identity to SEQ ID NO: 1.
19. The isolated polynucleotide of claim 12, wherein the polynucleotide is SEQ ID NO: 1.
20. An isolated polynucleotide comprising a member selected from the group consisting of:
- (a) a nucleic acid sequence encoding a polypeptide having at least 90% sequence identity over the entire length of SEQ ID NO: 2, as determined by the GAP program under default parameters, wherein the encoded polypeptide has ATP-dependent DNA binding activity; and
 - (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).
21. The isolated polynucleotide of claim 20, wherein the nucleic acid sequence of (a) encodes a polypeptide having at least 95% sequence identity to SEQ ID NO: 2.
22. The isolated polynucleotide of claim 20, wherein the polynucleotide encodes the polypeptide of SEQ ID NO: 2.
23. A recombinant expression cassette comprising the polynucleotide of claim 20 operably linked to a promoter.

Serial No. 09/538,396
Group Art Unit: 1638

- Sub E1*
24. A non-human host cell comprising the recombinant expression cassette of claim 23.
25. A host cell of claim 24, wherein the host cell is a plant cell.
- D 4 Sub E1 Cont'd*
26. A transgenic plant comprising the recombinant expression cassette of claim 23.
27. The transgenic plant of claim 26, wherein said plant is a monocot.
28. The transgenic plant of claim 26, wherein said plant is a dicot.
29. The transgenic plant of claim 26, wherein said plant is selected from the group consisting of maize, soybean, safflower, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
- Sub E1*
30. A transgenic seed from the transgenic plant of claim 26 comprising the recombinant expression cassette.
31. A recombinant expression cassette comprising the polynucleotide of claim 14 operably linked to a promoter.
- Sub E1*
32. A non-human host cell comprising the recombinant expression cassette of claim 31.
33. A host cell of claim 32, wherein the host cell is a plant cell.

Serial No. 09/538,396
Group Art Unit: 1638

34. A transgenic plant comprising the recombinant expression cassette of claim 31.
35. The transgenic plant of claim 34, wherein said plant is a monocot.
36. The transgenic plant of claim 34, wherein said plant is a dicot.
37. The transgenic plant of claim 34, wherein said plant is selected from the group consisting of maize, soybean, safflower, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
38. A transgenic seed from the transgenic plant of claim 34 comprising the recombinant expression cassette.
39. An isolated polynucleotide comprising a nucleic acid sequence which encodes at least 20 contiguous amino acids from SEQ ID NO: 2.—
-